160

JOURNAL of GEOMAGNETISM and GEOELECTRICITY

VOL. 22 1970

THE SOCIETY OF
TERRESTRIAL MAGNETISM AND ELECTRICITY
JAPAN

JOURNAL OF GEOMAGNETISM AND GEOELECTRICITY

Vol. 22, 1970

INDEX OF AUTHORS

Ádám, A. 223
Blake, J.R. 421
Brunelli, B.E. 383
Bucha, V. 253
Bullard, E.C. 73
Caner, B. 113
Carleton, B.J. 491
Cole, E.R. 485
Edwards, R.N. 71
Ghosh, S.N. 329
Girdler, R.W. 153
Gough, D.I. 97
Gupta, S.K. 329
Hanuš, V. 165
Harris, D.C. 463
Heirtzler, J.R. 197
Hirao, K. 341, 393
Ichikawa, T. 353
Isacks, B. 177
Ishikawa, H. 381
Ito, H. 273
Jacobs, J.K. 413
James, R.W. 241
Kamiyama, H. 403
Kanamori, H. 53
Kaneoka, I. 559
Kim, J.S. 353
Kinoshita, H. 471, 507
Kosminskaya, I.P. 179
Krause, D.C. 151
Krilov, S.V. 169
Krs, M. 165
Krupskaya, G.V. 169
Kuno, H. 559
Law, L.K. 71
Madden, T. 91
Maeda, K. 551
Mandelbaum, M.M. 169
Mikulich, M.J. 485
Mishenkin, B.P. 169
Morita, Y. 381
Nagata, T. 491
Namgaladze, A.A. 383
Niblett, E.R. 99
Old, T. 353
Osipov, Y.B. 471
Oyama, K. 341, 393
Ozima, M. 559
Pěčova, J. 235
Petr, V. 235
Porath, H. 97
Praus, O. 235
Puzirev, N.N. 169
Radoski, H.R. 361
Rankin, D. 413
Rikitake, T. 1, 7, 75
Schmucker, U. 9
Schwarz, E.J. 463
Shuey, R.T. 485
Sigurgeirsson, T. 213
Skiles, D.D. 441
Sowerbutts, W.T.C. 153
Tozer, D.C. 35
Untiedt, J. 131
Uyeda, S. 75
Watkins, N.D. 151
Whitham, K. 99
Winch, D.E. 291, 319
Zverev, S.M. 179

JOURNAL OF GEOMAGNETISM AND GEOELECTRICITY

TABLE OF CONTENTS

Vol. 22, No. 1–2, 1970

Preface and editorial ..... *T. Rikitake* 1
Opening remarks ..... *T. Rikitake* 7
An introduction to induction anomalies ..... *U. Schmucker* 9
Temperature, electrical conductivity, composition and heat flow ..... *D.C. Tozer* 35
Seismological evidence for heterogeneity of the mantle ..... *H. Kanamori* 53
Geomagnetic variations in the British Isles ..... *R.N. Edwards and L.K. Law* 71
Geophysical consequences of induction anomalies ..... *E.C. Bullard* 73
Electrical conductivity anomaly and terrestrial heat flow ..... *S. Uyeda and T. Rikitake* 75
Geoelectric upper mantle anomalies in the United States ..... *T. Madden* 91
Geomagnetic deep sounding and upper mantle structure in the Western United States ..... *D.I. Gough and H. Porath* 97
Multi-disciplinary studies of geomagnetic variation anomalies in the Canadian Arctic ..... *E.R. Niblett and K. Whitham* 99
Electrical conductivity structure in western Canada and petrological interpretation ..... *B. Caner* 113
Conductivity anomalies in central and southern Europe ..... *J. Untiedt* 131
North Atlantic crustal genesis in the vicinity of the Azores Islands ..... *D.C. Krause and N.D. Watkins* 151
Some recent geophysical studies of the rift system in East Africa ..... *R.W. Girdler and W.T.C. Sowerbutts* 153
Proposal for palaeomagnetic research of endogenous processes in eastern and south-eastern Africa—in the broader adjacent region of the rift valley of Eastern Africa ..... *V. Hanuš and M. Krs* 165
Crustal seismic investigations in the Baikal rift zone ..... *N.N. Puzirev, M.M. Mandelbaum, S.V. Krilov, B.P. Mishenkin and G.V. Krupskaya* 169
Structure of island arcs ..... *B. Isacks* 177
Structure of continental margins ..... *I.P. Kosminskaya and S.M. Zverev* 179
The paleomagnetic field as inferred from marine magnetic studies ..... *J.R. Heirtzler* 197
A survey of geophysical research related to crustal and upper mantle structure in Iceland ..... *T. Sigurgeirsson* 213
Some results of the magnetotelluric survey in the Carpathian basin and its complex interpretation ..... *A. Ádám* 223
Depth distribution of the electric conductivity on the Czechoslovak territory ..... *J. Pěčova, V. Petr and O. Praus* 235

Vol. 22, No. 3, 1970

Decomposition of Geomagnetic Secular Variation into Drifting and Non-Drifting Components ..... *R.W. James* 241

Geomagnetic Reversals in Quaternary Revealed from a Palaeomagnetic Investigation of Sedimentary Rocks ..... *V. Bucha* 253

Polarity Transitions of the Geomagnetic Field Deduced from the Natural Remanent Magnetization of Tertiary and Quaternary Rocks in Southwest Japan .... *H. Ito* 273

Geomagnetic Lunar Partial Tides ..... *D.E. Winch* 291

Geomagnetic Lunar Tides, O_1 Component ..... *D.E. Winch* 319

Altitude Distributions of and Radiations from Certain Oxygen and Nitrogen Metastable Constituents ..... *S.N. Ghosh and S.K. Gupta* 329

Effect of Electron Heating on the Electron Temperature Probe ..... *K. Hirao and K. Oyama* 341

Observations of Monochromatic Mid-Latitude Auroral Arcs of 6300A (OI) at Whiteface Mt., New York ..... *T. Ichikawa, T. Old and J.S. Kim* 353

The Resonance Barrier Theory of Hydromagnetic Waves ..... *H.R. Radoski* 361

Letter:

Measurements of Small Ion Density in the Stratosphere by Level-Flight Balloon ..... *Y. Morita and H. Ishikawa* 381

Vol. 22, No. 4, 1970

Periods of the Magnetospheric Oscillations and the Plasma Density ..... *A.A. Namgaladze and B.E. Brunelli* 383

An Improved Type of Electron Temperature Probe..... *K. Hirao and K. Oyama* 393

Negative Ion Densities in Chemical Equilibrium in the *D* Region..... *H. Kamiyama* 403

Transient Micropulsation Signals..... *D. Rankin and J.A. Jacobs* 413

The Effect of a Sloping Sea Floor on the Surface Electromagnetic Field..... *J.R. Blake* 421

A Method of Inferring the Direction of Drift of the Geomagnetic Field from Paleomagnetic Data..... *D.D. Skiles* 441

Phases in Natural Pyrrhotite and the Effect of Heating on their Magnetic Properties and Composition..... *E.J. Schwarz and D.C. Harris* 463

Magnetism of Monomineralic Clays..... *Y.B. Osipov and H. Kinoshita* 471

Geographic Correction of Archeomagnetic Data ..... *R.T. Shuey, E.R. Cole and M.J. Mikulich* 485

Natural Remanent Magnetization and Viscous Magnetization of Apollo 11 Lunar Materials..... *T. Nagata and B.J. Carleton* 491

Lists of Archeomagnetic and Paleomagnetic Results 1950–1970, in Japan... *H. Kinoshita* 507

Letters:

Mid-Latitude Electron Density Profile in the Low Solar Activity..... *K. Maeda* 551

Paleomagnetism and K-Ar Ages of Successive Lava Flows (4)—K-Ar Ages of the Usami Volcano, Izu Peninsula, Japan—..... *I. Kaneoka, M. Ozima and H. Kuno* 559